CLAIMS

1. A wireless communication system comprising a plurality of node devices each communicative with a base station, using one of a plurality of wireless communication protocols, and the base station which communicates with the plurality of node devices,

wherein each of said node devices and said base station carry out communication, using a wireless communication protocol selected based on an evaluation of efficiency of communication between the node devices and the base station.

2. The wireless communication system according to claim 1,

wherein each of said node devices evaluates said efficiency of communication based on a retransmit count of transmission packets.

3. The wireless communication system according to claim 1,

wherein said base station evaluates said efficiency of communication based on the number of node devices under management of the base station.

4. The wireless communication system according to claim 1,

wherein said base station evaluates said efficiency of communication, using packet transmit counts from said plurality of node devices under management of the base station and receive

counts of packets transmitted from the node devices.

5. The wireless communication system according to claim 1, wherein said base station evaluates said efficiency of communication based on error rates for packets received from said plurality of node devices.

6. The wireless communication system according to claim 1, further comprising

a management server connected to said base station,

wherein said management server evaluates said efficiency of communication based on the error rates for packets transmitted from said plurality of node devices and received by the base station or a combination of the packet transmit counts at the plurality of node devices under management of said base station and the receive counts of packets from the node devices at said base station.

7. The wireless communication system according to claim 1,

wherein said efficiency of communication is the amount of data transfer per power consumption for communication at said node devices.

8. A node device communicative with a base station by selectively applying one of a plurality of wireless

communication protocols, comprising:

a wireless unit;

a communication processing unit; and

a wireless communication protocol selecting unit,

wherein packet transmission from said wireless unit to said base station is controlled using a wireless communication protocol selected based on an evaluation of efficiency of communication with said base station.

9. The node device according to claim 8, wherein

said communication processing unit detects a retransmit count of transmission packets, and

said wireless communication protocol selecting unit evaluates said efficiency of communication based on the retransmit count detected, and selects a wireless communication protocol to be used.

10. The node device according to claim 8,

wherein said wireless communication protocol selecting unit selects said wireless communication protocol based on information indicative wireless communication protocol switching received from said base station.

11. The node device according to claim 8,

wherein said efficiency of communication is the amount

of data transfer per power consumption for communication at the node device.

12. A base station communicative with a plurality of node devices by selectively applying one of a plurality of wireless communication protocols, comprising:

a wireless unit;

a communication processing unit; and

a wireless communication protocol selecting unit,

wherein said wireless unit receives packets from said node devices, using a wireless communication protocol selected based on an evaluation of efficiency of communication with said node devices.

13. The base station according to claim 12, further comprising

a database unit in which a table for evaluating said efficiency of communication is stored, said table correlating applicable wireless communication protocols and the number of node devices under management of the base station,

wherein said communication processing unit detects the number of node devices under management of the base station, selects one of said wireless communication protocols based on said table and said detected number of node devices, and instructs said wireless communication protocol selecting unit to switch to the selected protocol.

14. The base station according to claim 12, further comprising:

a database unit in which a table correlating applicable wireless communication protocols and efficiency of communication is stored,

wherein said wireless communication protocol selecting unit refers to said table and selects one of said wireless communication protocols based on the evaluation of efficiency of communication.

15. The base station according to claim 14,

wherein said communication processing unit evaluates said efficiency of communication based on receive counts of packets from said plurality of node devices at the base station and packet transmit counts from the plurality of node devices, notified from said plurality of node devices.

16. The base station according to claim 12, further comprising:

a communication interface for communicating with a management server,

wherein the number of node devices under management of the base station or the receive counts of packets transmitted from said plurality of node devices and received by the base

station and the packet transmit counts from the plurality of node devices, notified from said plurality of node devices, are notified to said management server through the communication interface, and said wireless communication protocol is selected based on information for wireless communication protocol switching notified from said management server.

17. The base station according to claim 12,

wherein information of said selected wireless communication protocol is transmitted as information for wireless communication protocol switching to said plurality of node devices.

18. The base station according to claim 12,

wherein said efficiency of communication is the amount of data transfer per power consumption for communication at the node devices.